

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for monitoring performance of at least one machine operator, said method including the steps of:

measuring at least one machine parameter during operation of the machine by the operator, said at least one machine parameter related to the operation of the machine by the at least one machine operator;

segmenting at least one machine parameter that is a dependent machine parameter into segments where at least one dependent machine parameter exists, the range of each segment constituting a segmentation resolution;

generating at least one performance indicator distribution from measurements of the at least one machine parameter, said at least one performance indicator distribution comprising a range of values for a performance indicator derived from said at least one machine parameter; ~~and,~~

calculating at least one performance indicator for the at least one machine operator from the at least one performance indicator ~~distribution~~distribution; ~~and~~

evaluating a performance of the at least one machine operator based on the at least one calculated performance indicator.

2. (Original) The method of claim 1, further including the step of providing feedback to the operator by displaying the at least one performance indicator in substantially real-time to the operator.

3. (Original) The method of claim 1, further including the step of providing feedback to the operator by displaying the at least one performance indicator to the operator once the machine has completed an operation cycle.

4. (Original) The method of claim 1, wherein the at least one machine parameter is a dependent machine parameter.

5. (Original) The method of claim 1, wherein the at least one machine parameter is the sole parameter represented by a particular performance indicator.

6. (Canceled)

7. (Currently Amended) The method of ~~claim 6~~, claim 1 wherein the step of segmenting at least one of the dependent machine parameters includes specifying a magnitude of the range for each segment of each dependent machine parameter requiring segmentation.

8. (Original) The method of claim 4, wherein at least one dependent machine parameter does not require segmentation.

9. (Original) The method of claim 1, wherein the step of generating the at least one performance indicator distribution includes using a mixture of one or more distributions to model the performance indicator distribution.

10. (Original) The method of claim 9, wherein the number of mixtures is set dynamically.

11. (Original) The method of claim 1, wherein the at least one performance indicator distribution is generated using an algorithm.

12. (Original) The method of claim 11, wherein the algorithm is a Linde-Buzo-Gray (LBG) algorithm.

13. (Original) The method of claim 1, wherein the at least one performance indicator distribution is generated using a linear ranking model (LRM).

14. (Original) The method of claim 1, wherein two or more performance indicators are combined to yield an overall performance rating of the machine operator.

15. (Original) The method of claim 14, wherein one or more of the performance indicators are positively or negatively weighted with respect to the other performance indicator(s).

16. (Currently Amended) A system for monitoring performance of at least one machine operator, said system comprising:

at least one measuring device for measuring at least one machine parameter during operation of the machine by the operator, said at least one machine parameter related to the operation of the machine by the at least one machine operator;

a server for segmenting at least one machine parameter that is a dependent machine parameter into segments where at least one dependent machine parameter exists, the range of each segment constituting a segmentation resolution and for generating at least one performance indicator distribution from measurements of the at least one machine parameter, said at least one performance indicator distribution comprising a range of values for a performance indicator derived from said at least one machine parameter; and,

a performance indicator calculation module for calculating at least one performance indicator for the at least one machine operator from the at least one performance indicator ~~distribution~~ distribution;

a storage unit for storing the calculated performance indicator; and

a display device for displaying the calculated performance indicator,

wherein the calculated performance indicator for the at least one machine operator is used to monitor the performance of the at least one machine operator.

17. (Original) The system of claim 16, wherein the server is remote from the machine.

18. (Original) The system of claim 16, wherein the server comprises:
storage means;

communication means; and

a performance indicator distribution calculation module.

19. (Original) The system of claim 16, wherein the performance indicator calculation module is onboard the machine.

20. (Original) The system of claim 16, wherein the performance indicator calculation module is coupled to communication means for transmitting and receiving data to and from the server.

21. (Canceled)

22. (Currently Amended) The system of ~~claim 21,~~claim 16, wherein the at least one display device displays the at least one performance indicator in substantially real-time to the operator.

23. (Currently Amended) The system of ~~claim 21,~~claim 16, wherein the at least one display device displays the at least one performance indicator to the operator once the machine has completed an operation cycle.

24. (Currently Amended) The system of ~~claim 21,~~claim 16, wherein the at least one display device is onboard the machine.

25. (Currently Amended) The system of ~~claim 21,~~claim 16, wherein the at least one display device is remote from the machine.